

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XIV.]

WEDNESDAY, APRIL 27, 1836.

[NO. 12.

INVESTIGATION OF DISEASE.

A DISSERTATION READ BY L. M. WHITING, M.D. AT THE LAST ANNUAL COMMENCEMENT AT PITTSFIELD, MASS.

[Communicated for the Boston Medical and Surgical Journal.]

It is a maxim rife throughout the scientific world, that the present is an age of discovery and improvement. When this observation is made with reference to medicine, the breast of its enthusiastic votary cannot fail to swell with joyful emotions, as the mind recognizes its truth and peculiar applicability. The soul of the philanthropist, also, unconnected though he may be with our profession, as he looks upon the thousand writhing victims of disease in all its protean forms, must experience the most thrilling sensations of pleasure, in view of the prospect that the day is fast approaching, yea, has already dawned, in which the healer shall be able to declare in truth with respect at least to many *now* successful attacks of the spoiler, what the hero of antiquity declared on a certain occasion with regard to his enemies, "*veni, vidi, vici.*"

To the student who has for years, perhaps, been poring over ponderous tomes teeming with the incomprehensible mysticisms and absurd speculations of closet dogmatists upon the nature of disease, and with infinitely extended nosological arrangements, which only tend to make confusion worse confounded;—to one who has long been groping about in the thick fogs of theory, falsely so called, with hardly one glimmering ray of light upon his path-way, what can be more vivifying than to see the pestiferous mists in which he has been enveloped beginning to disperse under the influence of truth's enlivening beams—the errors of ignorance exposed—and the clouds of hypothesis swept from the horizon of medical science by that all potent wand—the scalpel of the pathologist.

With regard to the subject with which this paper is headed, and upon which we propose to make a few brief remarks, we start with the proposition, that *disease has never, until quite recently, been investigated.*

In order to show the truth and security of this position, it may seem necessary that we should go over the whole field of medical history, and discuss the merits of each individual who has ever made pretensions to the title of pathologist. This, however, of course we shall not do; for, in the first place, such a discussion would far exceed the limit allotted us; and secondly, it would be superfluous, as our object can be accomplished without. We shall speak of the method of investigating disease in former times, or what has been termed such, in a general and unconnected manner, referring to particular individuals whenever it shall suit our purpose.

And in so doing we shall avail ourselves freely, and without ceremony, of the writings of those who have been at the labor of collecting medical hypotheses.

Casting a glance, then, back through the dim vista of past ages for the purpose of finding a starting point, we behold in the fifth century before Christ, among the Asclepiades belonging to the temple of Cos, in embryo, the great Hippocrates—that splendid prodigy to whom all succeeding generations have unitedly ascribed the dignifying title of *the father of medicine*. How, or from whence, he obtained his information—whether he studied philosophy under Heraclitus, and medicine under Herodicus, as is commonly supposed, or not, is of no consequence to us. It is with his pathological doctrines and the method he pursued in their establishment only, that we have to do. And in adducing him we remark, that he is by far the most respectable representative of whom we have any knowledge, of a large portion of the medical world for a long series of years succeeding his own time. But notwithstanding this, and although his praise has echoed from generation to generation, and is even now daily upon the lips of every professor “from Dan to Beer-sheba,” yet he did not, as we conceive, ever know much about disease. It is true he was acute in his observations of phenomena presented externally by the human system in various conditions; but never did he push his observation or investigation, so far as we know, to the cause of these phenomena. To be sure he attempted to account for the appearances he observed, but was never able to do so in a manner which will bear the light of true philosophy for a single moment. The reason, in the present state of anatomical and physiological science, is obvious.

The hypothesis he espoused with regard to the elements and constitution of the body, was unfounded, and governed as he was in all his notions of the operations of the animal economy, by the *supposition* that the body consisted principally of four fluids—*blood, bile, phlegm and black bile*, and that these were presided over and superintended by an invisible, incomprehensible agent which he called *quors*, he could not come to correct conclusions as to the actual condition of the body when he called it diseased. In consequence of his peculiar tenets with respect to the composition of the organization, he was led to attribute all unnatural appearances presented by it to an excess or deficiency of some one or more of the four fluids, and here he left the subject entirely, if we except the influence he assigned to the stars in their production—the mysterious dogmas of Pythagoras, with regard to the occult power of particular numbers, and some more unintelligible jargon about spirits, et cetera. It is often said, we are aware, that old Hippocrates was remarkable for his *correct diagnosis*, and in the strict sense of the term he may have been so and probably was; but his diagnosis could have amounted to nothing more than the distinguishing of symptom from symptom, or one sign from another. From the appearance of different signs, he inferred that they indicated a different condition of the system, and he judged correctly in most cases; but as to what that *condition* was, he knew no more about it than many a quack of the present day who goes about with a folio of formula in his pocket—a horse load of the compound

in his saddle-bags, with which to harass the already worn-out invalid—and an M.D. at the fag end of his cognomen; and this, we think it is perfectly evident, is little enough. He was, then, barely a *symptomatologist*; as such we give him the glory: but as a *pathologist*, in the more extended and true definition of the term, he was nothing. He got hold of one of the propositions in a very complex problem, but was unable to give its solution, for lack of some others of equal importance.

The same observations (as we have already hinted) which we have made with regard to Hippocrates, will apply equally well to a great share of his successors, for century after century, even down to our own time. With respect to the *study of disease*, "they have all gone out of the way:" they have wandered in the dark through all the intricate mazes of speculation and hypothesis, each searching with eager eyes for that light which should expose to his astonished gaze the hidden fountain of pollution which fed the morbid streams. Many, as some new idea presented itself to the mind in the course of their profound cogitations, exclaimed, with all the ecstasy of the immortal Grecian—"Eureka"! But hardly did it begin to twinkle in the gladdened view and swimming eye of its beholder, before some unwelcome intruder, or daring innovator, gave it a puff;—it waned—flickered faintly—and all again was gloom.

A word here upon the subject of, or the term, *theory*, about which such a noise is constantly being made in the professional world in these days of "retrenchment and reform." This is supposed by many to be incompatible with *true science*, and we often hear it remarked that the former has hung like an incubus upon the energies of the latter, through all time—crippling its powers and delaying its progress. As we understand it, however, a theory is a scheme based on *established principles*. Now a plan or doctrine reared by logical inferences upon a basis of principles *established* by correct reasoning, must, as we conceive, be a true and correct doctrine, project, or *theory*, and such a scheme cannot be imperfect in its operation, let its application be made to medicine, or any subject whatever. The grand mistake, then, has been, not in being guided by theory, but in not instituting correct processes in its formation. The very principles upon which most of what are called the theories involving medical questions have been based, were never *established*: they are, and always were, false, and consequently the superstructures built thereon were as "the baseless fabric of a vision," transient in their existence—passing away upon the introduction of new doctrines and hypotheses, like the dew before the morning sun.

The originators of most medical systems in relation to pathology, have assumed certain elements as the material out of which the human body is composed, the very existence of which, however, they could not prove, and which actually did not exist, and from thence have gone on to reason (some correctly and some falsely) with reference to the various changes which these elements undergo in respect to each other, as they are operated upon by the multifarious influences in the sphere of which they are constantly brought, and each individual espousing or producing different

theories (?) according as he views these elements under the government of spiritual, vital, mathematical, chemical or mechanical laws.

As another example of this kind of investigation we may adduce Boerhaave. He regarded the animal system as endowed with the physical properties of matter, and exhibiting nothing specific in its nature and constitution, except what immediately depends on its mechanical arrangement, or the operation of its parts upon each other. The structures of the body he supposed to be minute fibres, made up by the mere mechanical cohesion of its ultimate particles, by means of a cementing gluten intervened between them. Proceeding upon the *supposed* existence of this simple fibre, which forms the basis of his whole system, he assigns to it properties of a purely mechanical nature, and *imagines* what will be their operation in the production of disease. By this process, which certainly appears to us supremely nonsensical, he deduces two great classes of disease—that of *relaxed* and *rigid fibre*. This principle of weak and elastic fibre, which he supposed was unquestionably *established* by his *guess-work*, he applied to the vessels and viscera, as well as to the other solid portions of the body, considering them as possessed of mere mechanical properties—casting out, or rather leaving out of the question, the consideration of the important fact that they form part of the *living* system, and consequently he disregarded their actions and functions.

The fluids are in the same or a still more miserable predicament, and for a similar reason. With regard to the changes which these undergo, his doctrine and arrangement is based entirely upon their *supposed* inherent physical qualities, instead of being founded on actual observation of their properties. The fluids, says he, are derived from the ingesta; the ingesta are all ultimately derived from vegetable products; *hence* they will retain their original properties, as those of acids, alkalies or the gluten. Such is the process of reasoning by which he comes to the conclusion, that, as the fluids are exposed in the body under various circumstances, they are liable to acquire an acid, glutinous, or alkaline tendency, according to those circumstances of exposure.

We see at a glance that such a doctrine and arrangement of disease, in relation to the chemical and physical condition of the fluids, is good for nothing, nay, worse than none at all; for these states of the fluids are unfounded in fact. The existence of an *acid* or an *alkali*, is merely confined to particular parts—exists in a slight degree only—and never forms an essential character of the constitution; and the *gluten* is altogether a creature of Boerhaave's imagination.

The same mode of inquiry which has been set forth as being pursued by Boerhaave, characterized also Stahl and his disciples;—that of attempting to account for all the appearances they observed, not by investigating the circumstances under which they occurred, and thus assigning to each of them their proper physical cause, but in ascribing them all to an *assumed* principle, which at once removed, without difficulty, all obstruction, and superseded the necessity of farther inquiry. By assuming the existence of a specific power or faculty of an immaterial nature, which had the office of regulating all corporeal operations, independent of physical agency, they effectually put a stop to all investigation, and,

so far as their influence extended, to all treatment likewise, and patients were persuaded to endure the most loathsome and painful affections, and even hailed them as the most merciful and beneficial dispensations, under impression that they were excited in the body for some important purpose by its ever constant, intelligent and able friend, the *soul*.

Again, we may allude to Cullen, as another instance of what has been falsely denominated the investigation of disease. The peculiar powers of this individual enabled him to controvert successfully the opinions and overthrow the hypotheses of most of his predecessors and contemporaries, and his doctrines with regard to *fever* have held almost unlimited sway over the minds and opinions of the most enlightened of the profession even to the present day. But notwithstanding the immense labor which it may be supposed he bestowed upon his essay on fever, and although it was finished with peculiar care—what, after all, we would inquire, does it amount to? We have his intermittent, remittent and continued; his synocha, typhus and synochus. But do these divisions, and the numerous sub-divisions which have been made, such as quotidian, tertian, quartan, double tertian, double quartan, &c. throw any light on the condition of the organs composing the human body, or any portion of them, in fever? Not a single ray; and he who attempts to follow out these several varieties and forms, at the bed-side of the patient, expecting thereby to derive any practical benefit, is, in our humble opinion, chasing a phantom—an ignis fatuus, which he will never be able to clutch. Indeed, Cullen knew nothing, or next to nothing, about the organs in their physiological condition; much less did he know of their condition in a pathological state. From him, therefore, we get no more light on the grand question, what constitutes the *disease*? than we do from old Hippocrates, Galen, Boerhaave, Brown, Darwin, and all indeed who either preceded or followed him, until within the last half century, and that amounts to *just nothing at all* that is satisfactory to the inquiring mind. It is true, he gave a correct description of the symptoms he observed in a condition of the system which he called fever, and so have a host of others: but he, nor they, show us nothing to which these signs bear a determinate relation, unless it be the progress and termination of this undefined condition.

In consequence of this half-way work which has been made by those who have pretended to investigate disease, as regards the main question to be settled, their efforts have proved a total failure.

But enough has been said about the speculations of olden time to show that their originators did not accomplish the object desired, notwithstanding they in many, and perhaps in all instances, confidently believed they had done so. And when we view the stupendous structures which the entire lives of generation after generation of *reasoners* were spent in rearing and adorning, we may admire their vast extent, and delight, perhaps, to wind about in fancy amongst their numerous labyrinths, but we lament that the founders made their bases a mere mound of sand, against which the tide of investigation has been for a long succession of years incessantly beating—cutting underneath subterraneous channels, and carrying away particle after particle, until they are no

longer a safe resort. We lament that the materials made use of in their construction were of so frail and ephemeral a character; that most of the huge and highly venerated piles have already crumbled away, and been borne to the gulf of oblivion on the bosom of the same current which is undermining their foundations; and were we magicians of sufficient power and art to conjure up the bearded sages of antiquity, we might also lament over their pitiable and forlorn aspect, as they pointed to the wreck of those magnificent temples which they had with so much toil erected, and which they confidently but vainly expected would stand unmoved and undisturbed amid controversial war, and the tempest of conflicting opinions, to the remotest period of time—the pride and admiration of all succeeding ages.

But must this be the necessary sad result of all attempts to reduce that branch of medicine, termed pathology, to a *science*, or even an approximation to certainty? We hope and confidently believe not. We believe that the new method of investigation, or that pursued in the present improved condition of the schools in Europe, is the course which is to lead ultimately to the establishment of a correct and permanent *theory of disease*. This phraseology, we are aware, may sound ominous, but we persist in it notwithstanding. Because all systems which have hitherto been promulgated have been false in themselves, and consequently transient in their existence, it by no means follows that there may not be formed one which shall stand, a tower of strength, unharmed by the rude shock of opposition's bursting wave, through all succeeding time; and such a theory, it is conceived, may and will be formed of disease.

It is not here supposed that by this new method we are coming at the *concealed* or *essential* cause of disease with certainty, or that it will ever afford us even a glimpse of its nature and composition. This may forever remain involved in the deepest obscurity—like the principle of life, or the essence of mind, unapproached and unapproachable by the human mind. And we know not that much, or even any benefit would be derived to us, should it be revealed; for if the obvious causes which come within the scope of mortal ken, without any abstruse train of reasoning, be detected and removed, it is enough, and the concealed causes may take care of themselves—they are of no consequence to us.

If, then, the attempt to investigate the *essential* cause be unnecessary and devoid of any productive result, whether successful or not, our attention ought surely to be directed to those causes which obviously tend to the derangement and destruction of the organization; and it is the observation of these causes simply, that constitutes the basis of the present popular method of investigation, pursued by many distinguished members of the profession in Europe, and by a few, also, by far too few, in our own country. Upon this basis, which is as firm as that of the everlasting hills themselves, upon this basis of *facts*, by availing ourselves of the inductive philosophy, the application of which to the natural sciences has already wrought out for them such magnificent results, we may raise a temple—a theory—which shall be as impregnable to the attacks of visionary schemers, as is the rock of Gibraltar to the surge which harmlessly lashes its adamantine pillars; that is, we may discover and set forth

the laws which govern diseased action, and which will continue so to do, as long as the organization remains organization. With respect to many conditions of the system, in which it is said to be, and truly is diseased, these laws, or some of them, at least, by the assiduous and well conducted labors of such men as Louis, Laennec, and Cruveilhier—those bright stars in the constellation of science—have been discovered and made out with perfect certainty, as typhus, tubercular phthisis, and apoplexy. In all these, they show us an invariable lesion; and they also show us that there is a certain train of symptoms, bearing a determinate and definite relation to these lesions.

Thus, in typhous fever, we invariably find alteration in Peyer's glands, in the small intestines, and the mesenteric ganglia; and accompanying these, we have a certain set of symptoms, but few of which, it is true, are invariable; but by instituting a comparison between the frequency of their appearance in this disease and *all* others, we arrive at a *general law*; or, in other words, we establish a *true theory*. This last expression, by the way, is a tautology, for we recognize no difference between truth and theory. Thus we find that *diarrhœa* is a very common symptom of typhus, while in other acute diseases it is far from being so. In typhus it has been found to occur, by numerical calculation, in the ratio of forty-three to forty-six; while in other acute diseases it occurs in only about half the cases.

Again, *tympanites* occurred in the ratio of thirty-four to forty-six: in other acute diseases it is a very rare symptom. *Cephalalgia*, also, is a very common symptom in typhus, but it is also common in other acute diseases, as inflammation of the lungs, smallpox, scarlatina, &c. *Delirium* is a very common symptom of typhus, occurring in the ratio of thirty-eight to forty-six; while in other acute diseases, as a general rule, it is rare. In *diarrhœa*, it occurred but twice in eighty-four cases, which were particularly examined by Louis; in *painter's colic*, four in sixty-four. In *pneumonia*, however, it is a common symptom; but this disease is also marked by the preponderance of certain other symptoms in all cases which do not characterize typhus; consequently we have no difficulty in making out our diagnosis. It is unnecessary to go further into an analysis of this or any other disease, to give an idea of the mode of diagnosing which we conceive to be the only true method—the NUMERICAL.

This simple process, then, of observing *facts*, and arranging them in numerical order, constitutes the only course by which a true system—one which shall unfold and set forth the laws which govern the organization either in health or disease, can be established. It cannot be done by sitting quietly down in some secluded studio, and dreaming over the subject: this has been proved by a vast multitude of lamentable demonstrations. *Speculation* is the garb in which medicine has been arrayed, from that remote period when it was rocked, in the cradle of its infancy, by the Egyptian priesthood, down to the present day; its texture varying, to be sure, according to the power and skill of the manufacturer, from the delicate, fine-spun, gossamer-like web of Darwin, to the more gross, uneven and unwieldy fabric of Hunter; its hue, also, changing by

being dipped in different dyes as often as it has become soiled by time and exposure. And what has been the consequence of this constant exercise of the fancy in relation to this matter of disease? System after system has arisen, flourished, fallen and been forgotten in rapid and melancholy succession, until the whole field is strewn with the disjointed materials in perfect chaos—and amongst the rubbish the philosophic mind may search for ages without being able to glean from it hardly *one solitary, well-established fact*.

If this is a true statement of the case (and let him who doubts, take up the history of medicine); if that enormous mass of matter which has been, time out of mind, accumulating, and which has been christened *medical science*, is in fact nothing but hypothesis piled upon hypothesis; who is there amongst us that would not exult in seeing it swept away, and that at once, by the besom of destruction? And if it be true, as we have said, that we are in possession of the needle which points directly to the long-desired haven, who is there amongst us that will not steer his ship in accordance with its indications? For our own part, we say, that if there exists a single individual, especially if that individual is young, within the pale of the medical profession, in whose breast the love of science does not burn with sufficient ardor, or whose desire for relieving the manifold woes which the hydra disease entails upon his race, is not sufficiently strong, to prompt him to the constant, close, and untiring observation, collection, analysis, and arrangement of *facts* in relation to the morbid conditions of the body, “let him be anathema maranatha”; let him be assigned his proper place, among old women and quacks, and let his name no longer blacken the escutcheon of our fraternity. To such an one, we could by no means extend the “right hand of fellowship”; for the lamp which has been lighted by the transatlantic pathologists has already sent its beams across the water, and as the hallowed flame grows brighter and brighter, its penetrating rays would inevitably search us out and expose us, for such a degrading deed, to the scorn and derision of all who worthily bear the title of *scientific physician*. He can be regarded only as a gangrenous eschar upon the *corps medicale*, and the sooner he is cut off, the better.

But it is frequently asked, How is this mode of investigation, admitting the justice of its claim to be the only true one, to avail us anything in reference to the ultimate end and aim of all departments of medicine—the *removal, or cure of disease*? This question arises naturally enough, to be sure; but it would seem that a moment's reflection would suggest another inquiry, the obvious answer to which would supersede the necessity of any attention to the former—namely, How shall we go to work to remove that, the nature and location of which is unknown to us? The notion, however, strange as it may seem, is somewhat prevalent, that a knowledge of the actual condition of the organs is of no great practical utility as regards therapeutics; and the knowledge of this fact induces us, in concluding this article, to say a few words upon the relation which the method of investigation we advocate, bears to the administration of remedial agents for the cure of disease.

And at the very commencement of our remarks on this subject, we

may apply to therapeutics, so far as the *materia medica* is concerned, the same sweeping phrase which we have already had the temerity (?) to introduce with regard to pathology—that it is a perfect chaos. After all the multitude of experiments which have been wrought with the various articles of the *materia medica*, how much, or rather how *little*, do we *know* of their relation to morbid action? Absolutely nothing, compared with what we ought to know, and what might have been made out for us centuries ago, had not the day-dreamers of those times entirely mistaken the mode of coming at what they wished to remove by the use of these agents. The want of some general rule or law to govern diagnosis is nowhere, in the whole range of medical literature, seen more prominently than in the works abroad in the land on *materia medica*. Authors are continually talking to us about the almost unlimited powers of certain articles in conditions of the system, to which they assign names according to the dictates of their own fancy, but which no one else, perhaps, has ever heard of, and which exist, in fact, only in their own excited imaginations. Or if two of them do happen to agree in applying to these *unknown* conditions a particular name, while one of them is engaged in trumpeting abroad the wonderful and miraculous control which a certain agent has over it, the other is averring, in the most positive and solemn manner, that it has no efficacy whatever in this condition of the system; and there is scarcely a single article in our almost interminable list of medicines, which has not had its day, as the triumphant antagonist of some previously invincible and mortal foe to the happiness of man. Indeed, in looking over and enumerating the long list of infirmities set down in the books of some writers as subject to a single article, the miscellaneous reader, if his observation did not convince him to the contrary, would be led to suppose that a sovereign panacea had at length been found, and that man need no longer fear the infliction of the primeval curse—"to dust shalt thou return." But to him who is versed in the history of catholicons, it appears that the reign of these potent spirits has ever been exceedingly short; and notwithstanding the *perfect subjection* under which they brought *disease*, they were soon themselves obliged to submit to, and make way for their still more mighty successors in the dynasty.

Now in regard to this matter, there must be radical error. If the laws which govern disease, or morbid action, are invariable in their operation, then the relation of certain agents to morbid conditions of the organization will always be the same; and this relation, in our opinion, may be made out with certainty, and a *theory of therapeutics* formed which shall be as immutable as any other natural law. But how is this to be done? Simply by *experiment* and *observation*. The first step is to make out with certainty the condition of the organization: the course to be pursued for the accomplishment of this object has already been laid down. After this is done, all we have to do to ascertain the relation which the *materia medica* sustains to this condition, is, to place the different articles in a situation where they can act upon the system, observe the results, and arrange them in *numerical order*. Thus we would carry our arithmetic along with us, not only in the *study of disease*, but in the *treatment of it*

also : and this we believe to be the only way that a theory can be constructed at all worthy to be adopted as our guide in the administration of remedial agents.

Were we to see a sportsman standing beside a grove, continually loading and discharging his piece without aim among the trees, and at the same time declare his intention to be the destruction of a bird whose song he heard somewhere within it, we should without hesitation pronounce him not only *non compos*, but also a *dangerous* individual, and fit only for the strait jacket or a mad house. Yet such, if we mistake not, is very nearly the course pursued by many a routine practitioner in the treatment of morbid conditions of the body by medication. Shoot away ! is the motto ; perchance we may hit the mark ; if not, the law is our safe-guard, and we have the *satisfaction* of feeling that we have done the best we could. But "the day is coming and now is," when the names of such men will be scathed by the lightnings of public indignation ; and such will be the true desert of those, who while the sun of science is shedding o'er the land its flood of living light, still prefer the darkness, and persist in quackery.

LAW OF MENSTRUATION.

[Communicated for the Boston Medical and Surgical Journal.]

IN Gall's Works, Vol. IV. American edition, page 219, the following paragraph occurs :

"Practising medicine in Vienna, in 1818, I perceived that at one time almost no woman was *reglée*, and at another that almost every one was at the same time. I kept a record for several years, and found that women could be divided into two great classes. Those of one class are all *reglées* within a period of eight days ; after these eight days, an interval occurs of ten or twelve days, in which very few women were found *reglées*. Below is a table of the days of two women, each belonging to a different class."

I had the curiosity to hunt up a Mass. Register of 1818, and find the state of the moon during the period there designated by the recurrence of this periodical evacuation, and you have it, except for December, which is not given in the Register.

Page 220.—"During my travels I continued my record, and found, much to my surprise, that the two epochs are the same in every country, at least in Europe. And I am induced to believe the same occurs throughout the world, by the fact that those species of monkey subject to this process, are subjected to it at the same time with women. Consequently the cause of this is not individual, but universal. The moon can have nothing to do with it. The epochs coincide with every phase of the moon. Often, in the spring, all the women advance on a sudden ; often, in the autumn, they are retarded some days, by a general influence."

Gall thinks, or has observed, that men are also liable to monthly derangements of health, which endure for a few days. Our city authorities,

our grave legislators, our reverend divines, should be warned of this thing. Elections should never be held on these days of malaise. Balls, christenings, nor any of the great affairs of life, should be conducted on days when one half of the women are out of sorts, and men in the dumps. Verily, to one who studies the march of modern science, the signs are significant. Do we not more and more see that we are groping about in the darkness of the dawn of science? that our ancestors in Egypt knew more than we think for, and that the union of the office of priest and magistrate was proper when important events were to be regulated by the foreseen state of human nature? The doctrine of fevers, which enabled our immediate ancestors in the profession to pronounce so decidedly on their crisis—may there not be some good ground for it in these days of reglement for women, and of malaise for men?

I wish to propose, through your valuable Journal, that *the dispensary physicians, and such others as may be able, ascertain from their patients the days on which they have been unwell for the last time, and continue their observation through the year, and that every month they should report to you. To verify such a general fact, would be highly interesting and may be important. Gall was a great and accurate observer, and his propositions are basis enough for the researches of the wisest.*

Table of the *Perigee and Apogee, and of the New and Full Moon, for 1818.*

1818.	Perigee.	Apogee.	New.	Full.	Reglées.		1st class Reglées days be- fore or after Apogee.		2d Class Reglées before or after Perigee.	
					1st class.	2d class.	Before.	After.	Before.	After.
January	3.31	17	6	22	19	3		2	0	0
February	27	14	5	20	16	1.29		2	1 & 2	
March	27	13	6	22	14	28		1		1
April	23	10	5	22	10	25	0	0		2
May	21	7	5	20	8	23		1		2
June	17	4	3	18	5.30	19	1	1		2
July	15	1.29	3	17	26	17	3			2
August	12	25	1.31	16	21	13	4			1
September	8	22	30	14	18	9	4			1
October	7	20	29	14	16	8	4			1
November	2.30	16	27	12	14	5	2			3
December			27	12	12	2.31				

In January, the *2d class* begins the same day with the perigee of the moon. In February, March, August, September and October, 1 day after perigee. In February, April, May, June, July, 2 days after perigee; in November, 3 days. In April, the *first class* begins same day with apogee. In March, May, June, 1 day after perigee. In January, February and November, 2 days after. In July, 3. In August, September and October, 4. So that the first class never come within 2 days of perigee. The second class never nearer than 3 days to apogee, supposing the classes in each case to occupy 8 days. One class manifestly avoids perigee and the other apogee. Are there any peculiarities of constitution, age, habits, &c. connected with them?

ANIMAL MAGNETISM.

[Communicated for the Boston Medical and Surgical Journal.]

[PERHAPS some of our readers will become as weary of this newly revived subject, as the anonymous letters of a few correspondents say they are of Grahamism.

M. Poyen has nearly ready for publication his translation of the report of the Committee to the French Institute, referred to some weeks ago, from which the following conclusions are drawn. Wishing to enlist the attention of the profession, that Animal Magnetism may be thoroughly investigated, we have given place to them.—ED.]

1. The contact with the thumbs or hands, frictions, or certain other gestures made at a little distance from the body, and called *passes*—such are the means used to place oneself in communication, or, in other words, to transmit the action from the magnetizer to the magnetized person. 2. External and visible means are not always necessary, since, in many instances, the steadiness of the look will have been sufficient to produce the magnetical phenomena, even the magnetized individual being not aware of it. 3. Magnetism acts upon persons of both sexes and different ages. 4. The time necessary to transmit the magnetical influence and make it felt, varied from half an hour to one minute. 5. Magnetism in general does not act on healthy persons. 6. Neither does it operate on every patient. 7. Sometimes, during the magnetical operation, some insignificant and fugitive effects manifest themselves, but which do not belong to magnetism alone; such as some oppression, heat or cold, and other nervous phenomena, that may be accounted for, without the intervention of a particular agent, viz. through hope or fear, the prevention and expectation of an unknown and new thing, the tiresomeness which results from the monotony of gestures, the silence and quiet kept during the experiments, finally by imagination, that exercises so great an empire over certain minds and certain organizations. 8. "*A certain number of the observed phenomena appeared to us as having been produced by magnetism alone, and could not be produced without it. These are physiological and therapeutical phenomena well established.*" 9. The real effects produced by magnetism are very various; it agitates some, calms others; the most usually it causes a momentary acceleration of breathing and circulation, some transient convulsive fibrillary motion, resembling electrical shocks, a numbness more or less deep, some drowsiness, somnolence, and, in a small number of cases, what magnetizers call somnambulism. 10. The existence of a constant and only character, fit to make us recognize in every case the reality of the state of somnambulism, has not been established. 11. However, "*we may conclude with certainty, that such a state exists, whenever it gives rise to the development of the new faculties designated by the names of clairvoyance, intuition, prevision, or produces some great change on the physiological state, as insensibility, a sudden and considerable increase of strength,*" and whenever, finally, that effect cannot be attributed to another cause. 12. As among the effects arising from somnambulism, there are some that can be feigned, somnambulism itself can sometimes be so too; and thus furnish charla-

tanism with means of deception. Therefore in the observation of those phenomena, which as yet present themselves only as isolated facts that can be connected with no theory, it is but by a most attentive examination, the severest care, and by numerous and varied trials, that one can escape illusion. 13. The sleep determined with more or less promptitude, and established in a degree more or less profound, is a real, but not constant effect of magnetism. 14. It is a fact demonstrated, too, that it has been determined in such circumstances as the magnetized individuals could neither see nor know the means used to cause it to take place. 15. When a person has been once put to the magnetic sleep, there is no need of recurring to contact and the "*passes*" to magnetize him again. The magnetizer's look, his will alone, have upon him the same influence. In such a case, the magnetized person can be not only acted upon, but also completely thrown into somnambulism; the magnetizer can bring him out of that state, he being not aware of it, out of his sight, at a certain distance, and even through closed doors. 16. Certain alterations, more or less marked, are ordinarily produced in the perceptions, in the faculties of those who fall into somnambulism, by the effect of magnetism. (A) Some, in the middle of the noise of confused conversations, hear no other voice than the magnetizer's; many answer in a correct and precise manner the questions asked by him, or other persons who have been brought into contact with them; some others hold conversation with all the assistants; seldom, however, they hear what is going on around themselves. Most of the time, they remain completely strangers to external and unexpected noises made at their ear, such as the resounding of copper vases violently struck before them, the falling of furniture, &c. (B) The eyes are closed; the eyelids yield but with difficulty to efforts made with the hands to open them; that operation, which is not free from pain, exhibits the eyeball convulsed, and turned upwards, and sometimes downwards in the orbit. (C) The sense of smelling is sometimes annihilated; somnambules can breathe into their lungs the muriatic acid or concentrated ammonia, without feeling any trouble by it, even without suspecting it. The contrary exists in some other cases; they are sensible to odors. (D) Most of the somnambules we have seen were completely destitute of the sense of feeling. We could tickle their feet, nostrils, and the angle of the eye with a feather; pinch their skin so as to cause an ecchymosis, prick it under the nail with pins suddenly thrust into it to a great deepness, without the least token of pain on their part; nay, they seemed not to perceive it. Finally, one of them has been seen who remained insensible to a most painful surgical operation, and in whom neither the face nor the pulse nor the breathing denoted the least emotion. 17. Magnetism has the same strength and intensity of action, and is as quickly felt at a distance of six feet, as of six inches—and the phenomena developed by it are the same in both cases. 18. The action at a distance cannot, as it seems, be exercised with success but on individuals who have already been submitted to magnetism. 19. We did not see any person falling into somnambulism the first time he was magnetized. Somnambulism manifested itself sometimes only in the eighth or tenth sitting. 20. We have con-

stantly seen the ordinary sleep, which is the repose of the organs of sense, of the intellectual faculties and voluntary motions, preceding and terminating the state of somnambulism. 21. While in somnambulism, the magnetized persons whom we observed preserved the exercise of the faculties they possess during the wakeful state. Nay, their memory seems more faithful and extensive, for they remember what happened all the time and at every time they were in somnambulism. 22. After awaking, they say that they have totally forgotten every circumstance of the state of somnambulism, and can never recollect it again. To ascertain this, we had no other guarantee than their own declarations. 23. The muscular strength of somnambules is sometimes numbed and palsied. At some other times, their motions are but troubled, and they walk staggering, as drunken men do, without avoiding, and sometimes also in avoiding, the obstacles they meet in their way. There are somnambules who preserve in all its integrity the exercise of their limbs; who even became much stronger and smarter than in the wakeful state. 24. We saw two somnambules, who distinguished, their eyes being closed, the objects placed before them; they have designated, without touching them, the color and value of cards; they read words written with the hand, also several lines of books opened without adhering to any particular page. This phenomenon took place even when the opening of the eyelids was kept exactly closed by the fingers. 25. We met in two somnambules, the faculty of foreseeing acts of the organization more or less distant and complicated. One of them announced several days, even several months in advance, the day, hour and minute of the invasion and return of epileptic fits. The other indicated the time of his cure. Their previsions were realized with a remarkable precision and exactitude. They seemed to us applied only to acts or lesions of their own organism. 26. We met but one somnambule who indicated the symptoms of the diseases of three other persons with whom they had been put in communication. Yet, we had been making investigations about that faculty on a pretty large number of individuals. 27. In order to establish with correctness the relation of magnetism with therapeutics, it would be necessary to have observed the effects of it on a great number of persons, and made a long time, and every day, experiments on the same patients. The Commission not having done this, ought to have contented itself with saying what it saw in a too small number of cases to dare to pronounce its judgment. 28. Some of the magnetized patients felt no good from it. Others felt a relief, viz. the one, the suspension of habitual pains, another regained his strength; a third one felt a delay of many months in the return of the epileptic fits, and a fourth the complete cure of a grave and long-continued palsy. 29. Considered as an agent of physiological phenomena, or as a therapeutical means, magnetism should be ranked within the frame of medical knowledge, and consequently physicians alone ought to use and watch over it, as it is already practised in the northern countries of Europe. 30. The Commission could not verify, because it had no opportunity to do so, other faculties that magnetizers had announced as existing in somnambules. But it has collected facts important enough to allow it to believe that *the Academy should*

encourage and favor researches on magnetism as being a very curious branch of psychology and natural history.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, APRIL 27, 1836.

INVESTIGATION OF DISEASE.

It will be observed that a large part of our pages, the present week, has been given up to a dissertation on the above-named subject. Had it been divided, and a part only published, the chain of reasoning would have been lost sight of, and its harmony destroyed. As a general rule, it is desirable to present the reader with a variety of topics; yet it sometimes happens that papers of unusual length are received, which cannot with any degree of propriety be rejected or divided. The merits of the article referred to, may be variously estimated. No one, however, can doubt the author's industry, nor call in question his power to acquire distinction in the pursuits of science, should he continue to exert that mental energy which characterizes his discourse. Original thinkers are so very scarce, that any efforts to diffuse light in regions of darkness, by thorough investigation into the phenomena of disease, should meet with a hearty encouragement.

DR. JACKSON'S LECTURES ON GEOLOGY.

THE first two lectures of this interesting course have been given at the Odeon, and have been attended by a large and respectable audience. In the first lecture, after pointing out the importance and utility of the subject, to all classes of the community, the lecturer offered a very consistent and ingenious theory of the formation of the globe, in which many of the ideas were, we believe, entirely original, and concluded with a description of the primitive and transition rocks, which he illustrated by a great number of specimens and diagrams. The second lecture treated on the secondary rocks, and was equally interesting and instructive.

One of the principal objects of these lectures is to point out and describe some of the most interesting localities in this country, in order to enable those who may have occasion to travel in their vicinity, the coming season, to examine them. The next lecture will principally be confined to the coal formations in the United States. We cannot too highly recommend all physicians who reside in the neighborhood of this city to attend the remainder of the course. They will be given on the two following Thursdays and Mondays, at 7 1-2 o'clock, P. M.

Musket Ball in the Lungs.—A case is mentioned in a late No. of the Berlin Gazette of Medicine, in which a leaden bullet was found, in a post-mortem examination, imbedded in the substance of the left lung, which had entered sixteen years previous, and which had given rise to no symptoms during life.

Medical Miscellany.—The Eye and Ear Infirmary Corporation have purchased an estate for twenty thousand dollars, at the corner of Green and Pitts Streets, in this city.—M. Andral's fourteenth lecture on the diseases of the brain and nervous system, has been received. The author sustains himself with unabated energy. Some one should republish the series in this country.—Dr. Wallace is giving powerful testimony in favor of the hydriodate of potash in the treatment of malignant fungous tumors, and cancerous diseases.—Dr. Inglis, of Castle Douglas, has reported a case of *aphonia* of twelve month's duration, successfully treated by tonics and blistering.—The new remedy of sinapisms to the mammæ, in amenorrhœa, meets with great favor among practitioners.—Dr. Elisha Bartlett has been elected mayor of the City of Lowell. He still holds a professorship in the Berkshire Medical Institution, which it is presumed he will necessarily resign.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—Will you permit me to say that when your correspondent W*. W*. will give me his real name and place of residence, and inform me of the names, places and dates of his pretended cases, I will take such notice of his communication as it deserves; but till then, I shall regard it as all such anonymous, loose and irresponsible communications ought to be regarded—as unworthy of any notice. Permit me to say, also, that I am ready and waiting to meet Dr. Lee's facts, as soon as you can find room for me in your Journal.

S. GRAHAM.

TO CORRESPONDENTS.—The communications of "Zeno," and Drs. Barratt and Alcott, with others before acknowledged, are on file for publication. Also a case of "protracted Suicidal death."

TO SUBSCRIBERS.—The following gentlemen are authorized to receive money due for the Boston Medical and Surgical Journal. Subscribers who are indebted, are requested to forward the amount due, either to the publisher or to one of these agents:—Mess. Duren & Thatcher, Bangor, Me.; Luke Howe, Esq. P. M. Jaffrey, N. H.; Israel Hinckley, Esq. P. M. Topsham, Vt.; Mr. Joseph Balch, jr. Providence, R. I.; Charles Hooker, M.D. New Haven, Ct.; T. O. H. Croswell, Esq. P. M. Catskill, N. Y.; S. Freeman, Esq. P. M. Williamstown, N. Y.; Dr. James S. Skinner, Buffalo, N. Y.; W. A. Gillespie, M.D. Ellisville, Louisa Co. Va.; Mr. L. Dwelle, Augusta, Ga.; S. Mayfield, M.D. Franklin, Tenn.; J. R. Bowers, Esq. P. M. York, Washtenaw Co. Mich.; Mess. Hedge & Lyman, Montreal, L. C.; Mr. Joseph Tardif, Quebec, L. C.

Those who receive the Journal through the agency of booksellers whose names are not given above, will of course pay them.—Members of the Mass. Med. Society are informed that, for their accommodation, the advance price will be received in full at the annual meeting of the Society in June.—Subscribers at a distance, who cannot procure current \$3.00 bills, will be allowed a discount when larger ones are sent as advance payment.

Whole number of deaths in Boston for the week ending April 23, 31. Males, 16—Females, 15.
Of inflammation in the bowels, 1—inflammation of the lungs, 1—pleurisy fever, 2—inflammation of the brain, 1—apoplexy, 1—asthma, 1—white swelling, 1—consumption, 7—lung fever, 2—suicide, 1—typhoid fever, 1—infantile, 4—old age, 2—drowned, 1—dropsy, 1—disease of the brain, 1—bilious fever, 1—gravel, 1—debility, 1.

THE BOSTON MEDICAL AND SURGICAL JOURNAL is published every Wednesday, by D. CLAPP, JR. at 184 Washington Street, corner of Franklin Street, to whom all communications must be addressed, *post-paid*. It is also published in Monthly Parts, each Part containing the weekly numbers of the preceding month, stitched in a cover. J. V. C. SMITH, M.D. Editor.—Price \$3.00 a year in advance, \$3.50 after three months, and \$4.00 if not paid within the year.—Agents allowed every seventh copy *gratis*.—Orders from a distance must be accompanied by payment in advance, or satisfactory reference.—Postage the same as for a newspaper.